REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on August 5, 2004, and the references cited therewith.

Claims 27 and 44 are amended, claims 28 and 45 are canceled, and no claims are added; as a result, claims 27 and 44 are now pending in this application.

Applicant amended claims 27 and 44 to more clearly recite the claimed subject matter. Applicant respectfully submits that no new matter has been added with the amendments and that the specification as originally filed supports the amendments.

Objection to the Drawings

The drawings are objected to under 37 C.F.R. 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sensing amplifier coupled to the sensing target must be shown or the feature(s) canceled from the claims(s).

The Applicant respectfully submits that in Figures 1-4, a sensing amplifier is shown coupled to the sensing target via a sensing conductor. In Figure 1, the sensing amplifier is illustrated as reference numeral 56. The sensing target is illustrated as reference numeral 50 in Figure 1. And, the sensing conductor that connects the sensing amplifier 56 to the sensing target 50 is illustrated as reference numeral 54. With regard to Figure 1, the Applicant's specification at page 8, paragraph 22, recites that the "PCA 56 contains various electronics (not shown) for filtering and amplification of drop detection signals received from the target 50 via electrically biased sensing conductor 54.

With regard to Figure 2, the Applicant's specification references, at page 9 paragraph 24, the sensing amplifier by referring to Figure 1. For example, the Applicant's specification recites "an electrically biased sensing conductor 54 may connect the non-contact electrically biased sensing target 66 to the drop detector PCA 56 as illustrated in FIG 1 for signal filtering and amplification."

The Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings under 37 C.F.R. §1.83(a), as the drawings show every feature of the invention specified in the claims.

§102 Rejection of the Claims

Claims 27-28 were rejected under 35 USC §102(b) as being anticipated by Bajeux, et al. (U.S. Patent No. 5,160,939).

Applicant respectfully traverses the rejection. In rejecting independent claim 27, the Examiner cites the Bajeux reference, stating that the Bajeux reference describes all the elements and limitations of claim 27. The Bajeux reference appears to describe a detector used as a jet phase and speed detector, and connected to an electric drop speed detection circuit. (See col. 6, lines 2-4 of the Bajeux reference). The detector measures the speed of an electrically charged ink drop.

In contrast, Applicant's independent claim 27, as amended, recites, besides other things,

> a non-contact electrically biased sensing target, wherein the sensing target is configured to receive a biasing voltage which creates an electric field from the sensing target to the ink drop generator; and
>
> a sensing amplifier coupled to the sensing target via a sensing conductor, whereby the sensing target is imparted with an electrical stimulus generated by a capacitive current related to a charge on an ink droplet created by the electric field, wherein the capacitive current is created when the charged ink droplet strikes a printing medium.

As recited by Applicant's independent claim 27, and supported by Applicant's specification at page 9 paragraph 24, the non-contact electrically biased sensing target receives a biasing voltage. The received biasing voltage is used to create an electric charge on an ink drop. The sensing target is also imparted with an electrical stimulus when the charged ink drop strikes a printing medium.

The detector in the Bajeux reference does not create an electric field from the sensing target to the ink drop generator as stated by the Examiner by referencing Figures 3a-3d. The Bajeux reference charges ink droplets by the use of separate devices. Those devices are the charging electrode and the charging circuit. (See col. 5, lines 65-68 of the Bajeux reference). Nor is the detector in the Bajeux reference imparted with an electrical stimulus generated by a capacitive current related to a charge on an ink droplet created by the electric field, wherein the capacitive current is created when the charged ink droplet strikes a printing medium.

As such, each and every limitation of Applicant's independent claim 27, as amended, is not shown in the Bajeux reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102 rejection of independent claim 27.

§103 Rejection of the Claims

Claims 27-28 and 44-45 were rejected under 35 USC §103(a) as being unpatentable over Schantz, et al. (U.S. Patent No. 6,086,190) in view of Bajeux, et al. (U.S. Patent No. 5,160,939).

For the reasons provided above, Applicant respectfully submits that the Bajeux reference does not teach all the elements and limitations of Applicant's independent claims 27 and 44, as amended. The Schantz reference fails to cure the deficiencies of the Bajeux reference. The Schantz reference appears to describe a sensing element that senses an electrical charge from an ink drop as the ink drop contacts the sensing element. Applicant has amended independent claims 27 and 44. Claims 27 and 44 recite, besides other things,

> a non-contact electrically biased sensing target, wherein the sensing target is configured to receive a biasing voltage which creates an electric field from the sensing target to the ink drop generator; and
>
> a sensing amplifier coupled to the sensing target via a sensing conductor, whereby the sensing target is imparted with an electrical stimulus generated by a capacitive current related to a charge on an ink droplet created by the electric field, wherein the capacitive current is created when the charged ink droplet strikes a printing medium.

The Schantz reference does not suggest a sensing target that is imparted with an electrical stimulus generated by a capacitive current related to a charge on an ink droplet created by the electric field, wherein the capacitive current is created when the charged ink droplet strikes a printing medium.

As such, each and every element and limitation is not provided in the references, either independently or in combination, to support a §103 rejection of claims 27 and 44. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claims 27 and 44.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (360) 212-8052.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

CERTIFICATE UNDER 37 CFR §1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS AF Commissioner for Patents, P.O. BOX 1450 Alexandria, VA 22313-1450, on this 15th day of September, 2004.

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